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This paper reports an evaluation of a performance contract in reading with 2,500 seventh-grade students. Seventy-five percent of the students were to increase their reading speed five times over their beginning level with ten percent more comprehension after three months of instruction. Results indicated that only thirteen percent of the students reached this objective. Analysis of the program found many invalid evaluation techniques used to assess student achievement. Issues discussed are the appropriateness and selection process of the program, negative teacher attitudes toward the program, and the program's failure to provide for the individualization of instruction. Recommendations are provided to assist school districts in developing performance contracts. (Author)

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AN EVALUATION OF A PERFORMANCE CONTRACT

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This paper reports an evaluation of a performance contract in reading with 2,500 seventh-grade students. Seventy-five percent of the students were to increase their reading speed five times over their beginning level with ten percent more comprehension after three months of instruction. Results indicated that only thirteen percent of the students reached this objective. Analysis of the program found many invalid evaluation techniques used to assess student achievement.

Issues discussed are the appropriateness and selection process of the program, negative teacher attitudes toward the program, and the program's failure to provide for the individualization of instruction. Recommendations are provided to assist school districts in developing performance contracts.

On February 27, 1970, the following news story appeared in the New York Times and similar stories appeared in other New York newspapers on subsequent days:

> Ninety fifth-graders in the Ocean Hill-Brownville demonstration school district in Brooklyn who underwent an intensive reading course over the first three months have surpassed the national reading norm, according to the course's sponsors...the reading rate of the group had been increased 33 times and the comprehension improved 9.3 per cent.

The story reported the outstanding success of the Reading Foundation of Chicago, Illinois, in improving the reading ability of "culturally deprived" children. Students in the program were reported to be reading at an average speed of over 5,000 words per minute. This achievement was extremely impressive since most students began the program reading between 100 to 200 wpm. In fact, President Nixon, having read about these results in the Times, wrote the administrator of the program, complimenting him and the Reading Foundation for their work as "showing promise for the nation."

This is what Robert B. Ayres, President of the Reading Foundation, had to say about the success of the program:

> The reason the P.S. 73 students, in spite of their extremely disadvantaged background, are today the best readers in the New York System, is simply that they are now able to utilize fifty to eighty per cent of their mental capacity in reading. Thus they are tapping the computer-like capabilities that everyone has, and this becomes a competitive advantage in spite of the many educational deficiencies that remain. From this point forward, they will assimilate 3-5 times the education they were capable of previously. It is because of the dramatic increase in utilization of mental capacity that we refer to our course as "linear programming of cognitive ability for more effective management and human development."

During summer 1970 the Foundation contacted the Superintendent of the Compton Unified School District (near Los Angeles) concerning the possibility of offering the program in the district for the coming school year.

Prior to the 1970-71 school year, there were three elementary and one high school district which were unified as part of the newly formed Compton District as of the 1970-71 school year. Reading achievement always was a problem in these districts since the majority of students read one or more years below grade level. Numerous reading programs were attempted before, but because of the lack of funds and/or the inability to increase reading performance, they were discontinued. The new superintendent hoped, during his first year leading the new school district, to change the course of events. Among his goals were: a) to alter the failure syndrome which had developed in the district of which poor reading was a major contributor, and, b) to encourage teachers to work toward a district-wide orientation in solving educational problems.

The Foundation gave the course to the superintendent, members of his family, and other select members of the community. After completing the program himself and noting the positive reactions of the other individuals who had taken the course, he believed that the Reading Foundation's program had the potential to alleviate some of the problems in the district. He was particularly impressed with the fact that students could see growth in a very short time, and this progress could have immediate impact on the self-concepts of the students.

A decision was made by the Superintendent in August to contract the Foundation for the program. This decision was made without the participation of many of the key personnel who would be involved in the program once school began. All regular seventh-grade students enrolled in English classes were scheduled into the program for nine weeks. Teachers trained by the Foundation assumed responsibility for teaching the course. The cost of the program was

$115,000 - $70,000 came from the 1970-71 school budget and $40,000 was contributed by Compton's Model Cities Program.

THE PERFORMANCE OBJECTIVE WAS STATED AS FOLLOWS: SEVENTY-FIVE PER CENT OF THE STUDENTS IN THE PROGRAM WILL INCREASE THEIR READING SPEED FIVE TIMES OVER THEIR BEGINNING LEVEL WITH TEN PER CENT MORE COMPREHENSION AFTER 24 HOURS OF INSTRUCTION AND 22 HOURS OF OUTSIDE READING.

PROGRAM

The Program (also referred to as Optimation Reading Course) was developed by Dr. C. J. Mullins, an educational psychologist at the University of Houston in the early fifties.

It comprised the following components:

A. Lectures focusing on the willingness and ability to read faster, emphasizing the following principles:

1. ATTITUDE....Becoming a rapid reader is in your hands... you can do it if you will let yourself...assume you are a rapid reader now...exhibit the self-confidence that a rapid reader has; don't be afraid of missing something in your reading.

2. READ AGRESSIVELY...Adopt a habit of quickness in everything you do from here on.

3. ANTICIPATE...Look forward, not back...how would you write this book...set up a basis for a right-wrong judgment...were you right? Remember, anticipation blocks regression which is caused by laziness, insecurity in reading, and an attempt to memorize while reading - don't tolerate any of these.

4. REMEMBER the opportunity that Rapid Reading represents to you...the added years of life...if it isn't easy for you - it is worthwhile...so keep at it!

5. There are many levels of Wholeness, or gestalt, or meaning:
   a. Lines
   b. Letters
   c. Words
   d. Sentences
   e. Paragraphs
   f. Chapters
   g. Books

You started at the word level...nobody achieves less than sentence level...paragraph level should be your minimum objective...move from general to specifics... never look for details.

6. SUBVOCALIZING...is the culprit...eliminate it by:
   a. Conscious effort
   b. Speed
   c. Counting

   When it comes back...as it will occasionally...move from 1 to 3 as needed.

7. SELECTION is important...the author writes for many people...much excess verbiage...don't be afraid of missing something...move along.

8. SURVEY your book <u>before</u> you read!

9. MECHANICS are important...14" from the eye... 30 minutes reading then 5 minutes break...material at right angles...prop material up, don't hold it... even illumination, no dark rooms.

10. VOCABULARY...don't stop to look up words...put a check in margin...then look up later...use 3 x 5 cards...your definition on back...correct on front... review occasionally.

11. RESEARCH EXERCISE
    a. Pick a specific area; e.g., a man's life, a battle, etc.
    b. Pick two, three, or four books (as required) that <u>all</u> cover the same area.
    c. Read the book <u>in the allotted time</u>...stay on schedule...remember that this exercise is just that - an exercise. Don't expect to enjoy it... but be sure to <u>do it</u> in the spirit as speed builder; stretch your present capacity as the means of building your future capacity...it is the <u>only</u> way!

B. Pep talks emphasizing the importance of speed reading, encouraging each student to try hard, and reinforcing individual and group accomplishments.

C. The administration of tests. Each of the tests consist of a six-page booklet containing a 1,350-word selection, 25 multiple-choice questions, answers to the questions, and a table to determine reading rate. In taking the tests, the students were instructed to read as rapidly as possible, to record the time when finished, and to answer the questions

leaving no blanks. The students received a comprehension score (percentage right), speed score (words per minute), and an index incorporating both speed and comprehension, determined by multiplying the percent of comprehension times the number of words per minute.

D. A reading pacer was used to control reading rate at various speeds. A basic technique was to force speed by shifting pacer-controlled reading; e.g., from 1200 wpm to 2500 wpm, back to 1200 wpm; from 1500 wpm to 2000 wpm, etc.

E. Tachistoscope exercises: on the basis of shutter-speeds and word density, wpm were calculated. For example, a shutter speed of 1/100 second and a word density of five would give 30,000 wpm (100 x 60 x 5).

F. Homework assignments of one hour of rapid reading for each class (approximately 24) were assigned. A Home Record Sheet was issued to each student in which he was to place the books read, dates, time spent reading, and words per minute (wpm).

G. Directed reading was used in class exercises which involved:

    1. A forcing of speed by vocalized time intervals (e.g., "5 seconds," "ten seconds" or "next page," "next page," "next column," "next column.")
    2. Oral reports on reading. The materials used were Reader's Digest Reading Skill Builder (fifth and sixth grade level).

The pacer was used during the first four weeks at speeds ranging from 1000 wpm to 2500 wpm. The students were requested to utilize from four to

six books per week. They were also instructed not to use condensed books or short stories but rather full length novels of 150 to 300 pages which are not used as material assigned as part of the class.

During the last five weeks of the program, the pacer was returned and the outside reading assignments changed to biographies and autobiographies. There were four different kinds of assignments:

	Class	No. of books
week 5	12 & 13	2
week 6	14 & 15	4
week 7	16 & 17	8
week 8	18 & 19	12
week 9	20 - 24	32
Total		58

1. They were asked to read a book on a person in one hour.
2. Next they were asked to read two books on the same person - first in 30 minutes each, then 15 minutes each.
3. Next they were asked to read 3 books on a person, now taking 10 minutes to read each book.
4. The last assignments required 4 books read on a person in 7 1/2 minutes each.

A typical schedule for the nine-week course included three sessions a week for the first six weeks and two sessions per week during the last three weeks.

RESULTS

The Diagnostic Reading Tests were selected to evaluate the performance objective. Table I represents the mean scores and percentiles on the vocabulary, comprehension, and story rate subtests from this instrument. Two-thousand five-hundred one students took part in the program. The data below include only those students taking both pre- and post-tests (N=1934).

Insert Table I about here

Table I

Mean Scores and Percentiles on Diagnostic Reading Tests

N	Group	Vocabulary		Comprehension		Read'g. Rate(wpm)		Duration of the program
		Pre %tile	Post %tile	Pre %tile	Post %tile	Pre %tile	Post %tile	
512	I	23.1 7%	25.3 11%	5.1 20%	4.8 20%	154 25%	834	10/19 - 1/3
577	II	23.0 7%	26.2 13%	5.4 20%	5.1 20%	158 29%	558	11/9 - 2/11
479	III	20.5 3%	22.8 7%	5.0 20%	4.7 20%	158 29%	816	1/18 - 4/1
366	IV	19.2 3%	23.0 7%	5.2 20%	4.9 20%	150 24%	420	3/1 - 5/6

In analyzing the data, the following factors must be taken into consideration: a) Some increases in reading skill would be expected without the influence of any special program due to the normal process of schooling; e.g., from October to January, students would be expected to increase their vocabulary due to instruction in English, reading, and other subject-related fields, b) Classes were not randomly assigned to the four groups, and, c) Since each of the groups began and finished the program at different times of the school year and the ability levels were not equal, caution should be taken in attempting to campare the effects of the program among the four groups.

Table I indicates that: a) Vocabulary and reading rate test scores increased, and, b) Comprehension scores decreased during the program. Only 259 students (13%) increased their comprehension 10% and reading speed five times over their beginning levels, falling far from the 75% level projected by the Reading Foundation.

The complete test data revealed the seriousness of the reading deficiencies among the student population. For example, including all students taking the pre-test (N=637) 427 students scored between the 1st and 9th percentile on the vocabulary section of the test, only 19 students scored above the 50th percentile; 389 students scored between the 1st and 29th percentile on the comprehension section, 101 students scored about the 50th percentile.

DISCUSSION

In this section we will explore the Reading Foundation's assumptions regarding the nature of reading problems as well as a number of questionable evaluation procedures used by the Foundation during the program.

The district and Foundation decided not to use the comprehension test in Booklet 1 of the Diagnostic Reading Tests (Survey Section; Lower Level) to measure comprehension skills. Instead, the comprehension section on the narrative material from which the rate-of-reading scores is computed was used (Booklet 2). The test in Booklet 1 is a power test (untimed test) rather than one which includes reaction time as a factor.

The following statement can be found in the "Directions for Administering" the reading test (page 2):

> The extent of comprehension of the stories read at the rate indicated by score 3a...is not a valid and reliable measure of a general comprehension skill, but is used here to determine whether the student comprehended adequately what he read at the rate recorded. IF 75 PERCENT OF THE ITEMS ARE FOUND TO BE CORRECT (TEN OR ELEVEN ITEMS) THE RATE SCORE IS PROBABLY VALID (capitalization ours).

This statement suggests that the reading rate scores may not be valid since the percent of correct items on the comprehension was about 33 percent (mean score of 5; see Table I). A more detailed analysis of the relationship between comprehension and reading rate is discussed later in the report.

Another questionable evaluation decision was made after the pre-tests were given. The Foundation requested a change in the administration of the reading-rate section of the test. The reading-rate section requires three minutes to ascertain each student's speed as reported in words per minute. This procedure was followed for all pre tests. However, for the post-tests, the Foundation requested that this period be changed to thirty seconds.

The Foundation reasoned as follows: since the reading test is only normed up to 333 words per minute, it would be impossible to demonstrate an increase of five times. For example, if a student began the program.

reading at 150 wpm, it could not be shown that he might read at 750 wpm at the completion of the program. Therefore, it was suggested (and accepted by the district) that reading rate be determined by a sprint speed of thirty seconds rather than the three minutes required by the test. The words-per-minute rate at thirty seconds was multiplied by six (since there are six thirty-second intervals in three minutes) to obtain each student's reading rate. The district was assured (by the Foundation) that this change would not alter the validity of the test and would enable the evaluation of the performance objective.

The Reading Foundation was correct in stating that the Reading Diagnostic Tests could not adequately evaluate performance objective as stated. But it was too late to select another test because the pre-tests already were given to the first group. However, the Foundation's suggested method in alleviating the problem was poor. Although the procedure may appear logical, it is not valid because it tends to produce highly spurious results. It has been demonstrated that reading rate becomes more reliable as the length of the test increases (Traxler, 1938). Traxler concluded in his study that the time allowed for most reading tests of reading rate (one to five minutes) are too short for high reliability. Therefore, a test of thirty seconds would have extremely low reliability. The Foundation has used sprint rates (short periods to measure reading rates) in other programs. In this manner, they estimate students reading at the thousands of words per minute. <u>But sprint rates are not exact rates of reading speed</u>.

Mullins (1956, p. 393), the originator of this reading program, stated, "...there are many difficulties of testing at these speeds, some of which undoubtedly lend spurious weight to the results..." In the same article he said that he believed that these sprint speeds are, "...somewhere near

the point indicated by the test results."

If a fairly reliable time of three minutes is used for pre-testing and a less reliable time of thirty seconds is used for the post-testing, the likelihood of an increase in words per minute between the pre- and post-tests scores is enhanced. This result is even more probable after reading a statement by Triggs (1960, p. 45), one of the authors of the Diagnostic Reading Tests. She stated the following about the difficulty of the comprehension section of the test, "The first paragraph is below the third-grade level in difficulty, and the paragraphs become progressively more difficult for the students." Therefore, it follows that the students might be more likely to read the first part of the passage more rapidly than the latter part due to its increasing difficulty. By using a thirty-second rate of reading, one assumes that this interval is an accurate estimation of an individual's reading rate. For example, if he reads at 800 wpm for the first thirty seconds, he will continue at this same rate for the remaining 2 1/2 minutes. Due to difficulty of the reading passage and numerous individual differences in reading, standardized tests select longer periods of reading (3 to 5 minutes) to average out reading trends during short intervals. In this manner a more accurate determination of true reading rate can be made.

In order to more closely investigate the reliability of the change from three minutes to a thirty-seconds reading period to determine reading speed, the evaluators requested the school district to select a sample of students from four schools which represented a wide range of ability. A sample of students who completed the program between October and January were given additional post-tests in June using both a thirty-second and three-minute reading rate. The population of this group was 482; students who were

not present for all four testings were dropped from the sample, leaving 440 students. The following data in Table II represents the results of these tests.

Table II

POST-POST-TEST MEAN SCORES OF SELECT GROUP

Oct. (3 min.)	Jan. (30 sec.)	June (3 min.)	June (30 sec.)
Reading Rate			
150 wpm	823 wpm	205 wpm	780 wpm
Comprehension			
4.9	4.8	5.5	5.5
Vocabulary			
23.7	25.8	26.7	

In analyzing the two June reading rate scores, we found a wide discrepancy between the two tests. According to the data, the students read at 780 wpm when the thirty-second reading period was used. When the proper three minutes was used, the reading rate dropped to 205 wpm. Both of these rates could not be correct. Previous research would support the use of the three-minute rate as more accurately representing actual reading speed. These results strongly reinforce the warnings of specialists in reading and evaluation about selecting extremely short periods (sprint speeds) to determine reading speed. Thus, the actual number of students reaching the performance objective was probably considerably lower than the percentage reported.

Another important aspect of any program is practice and subsequent feedback to determine day-to-day progress. The Reading Foundation used a reading index to provide this feedback to the students. As mentioned earlier, after the students completed each reading selection, they were given a

comprehension and speed score (wpm), and an index (per cent of comprehension multiplied by wpm).

Why is reading rate multiplied by the percentage of comprehension? The reason for such an index is to reduce the student's score by his level of comprehension. Again, presumably a logical procedure; however, applying this comprehension check to measure reading rate produces other evaluation problems. Farr (1969, p. 61) provided an excellent example to illustrate the invalidity of this procedure:

> Suppose an examinee reads 300 words per minute and scores 85 per cent on comprehension. Multiplying the two would result in a reading speed score of 255 words per minute. If the examinee merely reads the title of the selection and then reports that he had read the material, his speed would be taken as being approximately 20,000 words per minute, a subsequent comprehension score of 11,000 words per minute. Such a comprehension score without reading would not be unusual since the examinees can always answer several questions correctly on the basis of prior knowledge and several other items can be guessed correctly.

It was reported that as the Reading Program proceeded, students realized that a very low comprehension score matched with an extremely high words-per-minute score would yield a high index. Thus, many poor readers finished the 1,350 words selection in several seconds, and then answered the multiple choice questions as quickly as they could write down twenty letters.[1] In this manner, they obtained a high index and were made to believe they were reading thousands of words per minute and were becoming better readers. In reality, the high index could be explained, in part, by poor evaluation procedures.

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[1]Students were told not to leave any blanks. Therefore, by chance alone, their comprehension score would increase. Frederick B. Davis discusses many of these issues in his paper, "Measurement of Improvement in Reading Skill Courses," 11th Yearbook of the National Reading Conference (1962), pp. 30-40.

It is also difficult to determine the influence of previewing upon comprehension scores. In many instances the instructor would preview and anticipate the selection to the students before the test. This procedure would enable students to obtain higher comprehension scores without careful reading.

Lastly, many students noticed that the answers to the comprehension section of the reading selections were only one page from the question, and so either by turning back one corner of the page or pressing hard on the second page of the multiple-choice questions, the correct answers could be seen. All the above factors limited the meaningfulness of the practice tests.

Ayers (1968a), president of the Reading Foundation, wrote a paper in which he discussed the relationship between the Optimation Program and the acquisition of reading skills. He began by stating the primary objective of the course, "...to increase immediate comprehension and long run retention of all materials read. But the course also increases the rate of reading, and achieves the highest reliable rates reported. Increasing the rate of reading, as we will see, results in increased and faster understanding of the material (page 1)." (Underlying ours.)

This relationship was not supported by the results of the present program nor by research evidence. As early as 1942, Stroud pointed out this conclusion was reached because testing comprehension was accomplished by time tests. Therefore, the comprehension score was contaminated by the speed factor. One often finds a relationship between reading rate and comprehension when comprehension is the number of items right (as determined by Section 2 of the Diagnostic Reading Test). The relationship between rate and comprehension is low when comprehension is the percentage of

right answers. Why does this occur? When a student completes a speed reading program he may read so rapidly on the post-test that his comprehension score is markedly reduced, but obtain a higher score than at the beginning of the program simply by marking answers (sometimes at random) to a greater number of items. Because of this test-taking behavior, his test score gives the false impression that he has greatly increased in reading speed while maintaining or slightly improving his comprehension score (Davis, 1962). This false belief in the relationship between rate of reading and comprehension is responsible for the notion that "fast readers are good readers." Large gains in achievement test scores as a result of speed reading also can be attributed, in part, to this same artifact of testing; i.e., failure to correct for guessing and using the number of correct items as a score. In the summary of results of another project by the Reading Foundation, Ayers (1968b, p. 2) stated the following, "In using the Stanford Achievement test scores for comparison between 1967 and 1968, the demonstration group gained 1.4 years of learning in paragraph meaning compared to only .7 years by the control group - a gain of 200% for the demonstration group." There are 76 questions in the Paragraph Meaning section of the Stanford Achievement Test. According to the norm table, the difference between a gain of .7 and 1.4 years is only <u>four</u> questions. Therefore, simply by attempting more items, an individual could score higher on Paragraph Meaning without any real growth in this area.

There is also evidence that the correlation between rate and comprehension of easy material is high, but as the difficulty of the material increases, the correlation coefficients decrease (Tinker, 1939; Shores and Husbands, 1950). In addition, Shores and Husbands (1950) "found that reading comprehension depended less upon speed than upon intelligence, purposes of the reading, difficulty of the material read, opportunities for verifying questions of

comprehension, and the continuity of the text."

Ayres (1968a, p. 69) also asserted that "slow readers have common personality flaws." Yet most studies (e.g., Gann, 1945; Garrett, 1949; Spache, 1954) have failed to reveal any personality patterns for poor readers. What is surprising is that Ayres included Gates's (1941) paper as a reference to support his position; but Gates's conclusion is directly in contradiction to the contentions of Ayres's paper. Gates stated, "There is no single personality pattern among pupils of adequate intelligence characteristic of the reading failure or disability" (Gates, 1941, p. 78).

In still other literature concerning the Foundation's program, the question, "Why do we read slowly?" is answered as follows: "Slow and effective reading is directly traceable to early school training in reading aloud. After learning to read silently, most readers continue to pronounce or hear each word mentally, a habit which is called sub-vocalization." In the second sentence of the above statement, we find the phrase "...after learning to read silently..." which apparently means that the above explanation is appropriate for students who already can read. But what about students who have not learned to read. Can we simply state that if we stop them from subvocalizing, they will become faster readers?

It is obvious that high reading rates cannot be attained when each word is vocalized, for the rate at which words can be said is rather low. However, there is evidence that subvocalization is positively related to comprehension (Cleland, 1968; Edfeldt, 1960). Also, in view of the current interest in auditory and visual channels of information and in the identification of children who learn best through one modality or the other, one should be cautious in discouraging all children to suppress the habit.

There were a number of other problems which limited the success of the program:

1. The teachers were not adequately prepared for the program.

2. The teachers had negative attitudes toward the program.

These two factors will be discussed jointly because of the close relationship between them. A common fallacy in approaching educational innovation is what one might call the rationalistic fallacy, the assumption that telling people about the desirability of change will result in change (Johnson, 1970). Both the school district and Reading Foundation were guilty of such reasoning.

The teachers at Compton have seen many different reading programs introduced in their schools. Why should they believe this new program would be better than any of the preceding programs? The Reading Foundation underestimated the importance of "selling" their program to the teachers. There were some meetings with teachers at various times of the year, but these sessions were not a part of an organized inservice program. The Foundation had no program to maintain an ongoing dialogue with the teachers to deal with specific problems and to explain how the program could be supplemented using regular classroom material.

A main reason for the lack of teacher preparation was related to the late date of the initiation of the program which was conceived late in the summer. It wasn't until the school year had already begun that teachers were told about the new program which was to begin in a few weeks. It is not surprising that many teachers didn't know their role when the Foundation teacher entered their classroom to begin the program.

Among the English teachers whose students participated in the program, (n=18) 75% replied that they did not feel the program was beneficial for most children. Concern was expressed for the average and below average student.

The comment most frequently heard was, "How can a child read fast when he can't read at all?" These teachers believed that the program was inappropriate for improving the kinds of reading disabilities found in the district. One positive comment which may have some implications for the regular instructional program was that some students appeared to have benefitted from the structure of the program. In other words, the fact that one was expected to complete a certain amount of work between each reading session did have some positive influence on the study habits of certain students.

3. The program was not integrated in the various subject-areas.

In order for most programs to influence student achievement and attitudes, the program must be well integrated into the curriculum of the school. In the case at hand, the English, mathematics, social studies, and other subject-area teachers could have incorporated principles of the reading program into their teaching to reinforce basic principles which the students were learning in the special reading program. In this manner, the program would have had greater impact on the students, since all teachers would be involved in the program. Thus, instead of 24 hours of instruction in speed reading, the time could have been doubled or tripled by each subject-area teacher spending some time reinforcing reading skills in their classes. Unfortunately, none of this happened. Instead, the program operated as a separate entity with most subject-area teachers knowing very little, if anything, about the organization of the program. Many teachers even reported that the reading program didn't have much to do with their subject areas.

Another situation related to this problem arose from the different teaching methods incorporated by the Foundation and regular English teachers. During two days a week the students were told that speed was important, that one should keep on reading if he didn't know a word, while the other three

days of the week the English teachers were stressing, in some instances, the exact opposite - don't read on until you understand the word, take your time, be careful, don't rush. As a result, instead of both of these programs complementing each other (since speed reading and the instruction of other reading skills are not mutually exclusive), they conflicted with each other. Since the majority of English teachers did not accept the philosophy of the Reading Foundation toward improving reading, the differences in the two approaches were accentuated.

4. The Program failed to provide for the individualization of instruction.

Ayres (1968a) stated that from hundreds of classes using Mullins's program[1] the following findings have emerged:

a. The teacher can deal with a wide range of reading abilities and difficulties in the same class.

b. No student has been adversely affected by the course's method.

c. There is little, if any, strain on the individual, regardless of how inept he is or hard he tries, because students are urged to use the easiest material in their outside practice.

Although Mullins might have found the above to be true with college students and adults, these findings did not hold for the Compton group. There was a wide difference in reading ability among the student population with a large percentage of the students reading below grade level. In the normal reading program teachers have difficulty working with the range of ability in one class. This same problem was as great in the Reading Foundation Program.

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[1]All of Mullins's research papers pertain to a college or adult population. Can these findings be generalized to an elementary or junior high school population?

The Foundation stated that they believed about 25% of the students would not be able to complete the program. The evaluators believe they greatly underestimated this percentage, and would place the estimate closer to 60% to 75%. The fact that the majority of students did not complete the program as prescribed is another reason for the small percentage of students reaching the performance objective.

In analyzing the reading schedule and discussing it with students and teachers, one finds it extremely demanding for individuals with reading disabilities. For example, after eleven meetings with outside practice, the students should have obtained a reading rate of 2,500 words per minute (wpm) with the use of the pacer. These same students only two weeks before were tested to read between 148 and 158 wpm. After another two weeks they were required to read two books each in fifteen minutes. In Total, 58 books were to be read in approximately six weeks.

There is nothing wrong with having high expectations for student achievement. In fact, this is commendable. However, when students perceive certain expectations to be unattainable or unrealistic, frustration often occurs and methods are found to circumvent the program.

Approximately 1500 students responded to a questionnaire attempting to determine student attitudes toward the program. About one-half of the students stated they enjoyed the program; 70% of the sample responded that

they became bored with the program after a few weeks;[1] 70% responded that the program improved their reading skills,[2] but 62% believed they would have gained more by staying in the regular English rather than take the special program; finally, 42% recommended the program continue the next year.

An important issue in analyzing the impact of the program was whether or not the students actually read the required 58 books. Students in groups 1 and 2 reported reading an average of 4.6 books a week; students in groups 3 and 4 reported reading 5.8 books. Although this shows that on the average 58 books were not read in six weeks, it is still an impressive rate if the books were actually read. However, data from librarians' records showed that not enough books were checked out to support the students' data. The following was typical of the schools:

SET OF 2's (Six sets required in course)
- 21 students failed to check out any
- 35 students checked out one set
- 82 checked out two sets
- 17 checked out three sets
- 0 checked out four sets
- 1 checked out five sets
- 0 checked out six sets

SETS OF 3's (Four sets required)
- 34 failed to check out any
- 26 checked out one set
- 58 checked out two sets
- 33 checked out three sets
- 1 checked out four sets

(continued next page)

[1]The turning point in the drop in interest appeared to occur after the pacers were returned.

[2]Many students were confused about their progress. They were constantly being told by the Foundation teacher that they were reading faster and becoming better readers; results of practice tests supported this notion. However, many students realized that such improvement was obviously occuring without any effort on their part since they were not completing the required assignments. It appears that the "teacher expectancy" impact did little to influence student achievement in this situation.

SETS OF 4's (Eight sets required)
32 failed to check out any
29 checked out one set
35 checked out two sets
33 checked out three sets
21 checked out four sets
3 checked out five sets
No one checked out six, seven, or eight sets

Finally, students were asked directly on a questionnaire whether they read all the books they checked out - 444 responded "yes," 1135 responded "no." We did find that a few students were influenced by the program and read a considerable number of books. But for the most part, the students failed to real all the books they checked out.

SUMMARY

The Foundation stated that their program "is unique among rapid reading programs in that the methodology of its system is based on proven psychological and physiological principles..." The basis of this report failed to substantiate this claim. The following problems were pointed out: a) lack of individualization of instruction, b) poor evaluation procedures, c) generalizations regarding the nature of reading problems, and d) negative teacher attitudes toward the program.

The Foundation emphasized that the program attempted to "develop the mind." The comments by the president of the Foundation (page 1) "...will be able to utilize fifty to eighty per cent of their mental capacity in reading...will assimilate 3-5 times the education they were capable of previously...because of the dramatic increase in utilization of mental capacity..." reflected the type of language used in promotional material - assertions which have not been supported by empirical research.

There is no question that slow readers can be taught to read faster. According to test norms, 300 words per minute is high for a seventh-grade

student. When an attempt is made to increase reading speed five times in a short period of time with readers who have serious reading disabilities, the challenge is indeed great. But there are still some students who may be able to achieve this goal. The Foundation was also correct in stating that no one knows the full potential of the mind and what it can achieve. However, no rapid reading program (including the Reading Foundation Program) has been able to demonstrate legitimately that it can produce and maintain large gains in reading speed with a sizeable number of students. Until that time occurs, educators should be cautious in utilizing such programs in the curriculum.

RECOMMENDATIONS

There are a number of recommendations for school districts involved in performance contracting which develop from this report: a) Performance contracts should clearly spell out both the firm's and district's responsibility in carrying out the program in terms of personnel, equipment, and services. For example, there was a lack of books in the present program and it was not clear who was to blame. Representatives of the school district stated they were told by the Reading Foundation that a satisfactory program could be worked out in which the needed books could be transported among the schools participating in the program. However, the Foundation stated the program was adversely affected due to the district's failure to provide the required number of books; b) Before any contract is signed, a careful evaluation of the program should be made including a check of the credentials of the personnel to be employed by the contractor. Documented research concerning the effectiveness of the program should be requested. Some school districts might want to employ a management support group

(Lessinger, 1971) - individuals who have special skills and experience to help local educators deal with the problem of locating the best program for their school; c) Appropriate administrative, faculty, and community representatives should participate in major decision-making throughout the organization of the program; d) An outside evaluation team should be involved early in the program. A number of measurement specialists (Stake and Wardrop, 1971; Stake, 1971) have criticized the use of standardized tests in measuring individual gains during performance contracts. School personnel should be aware of these issues and give considerable attention to the selection and use of all evaluation instruments.

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